

PATENT COOPERATION TREATY

**PCT**

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**  
(PCT Article 36 and Rule 70)



Applicant's or agent's file reference LM 0005 PCT/HaK	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP 03/03925	International filing date (day/month/year) 14.04.2003	Priority date (day/month/year) 18.04.2002
International Patent Classification (IPC) or both national classification and IPC E01F15/08		
Applicant LAURA METAAL EYGELSHOVEN BV		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

- I  Basis of the opinion
- II  Priority
- III  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV  Lack of unity of invention
- V  Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI  Certain documents cited
- VII  Certain defects in the international application
- VIII  Certain observations on the international application

Date of submission of the demand 28.10.2003	Date of completion of this report 03.09.2004
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer Severens, G Telephone No. +31 70 340-3360



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No.

PCT/EP 03/03925

**I. Basis of the report**

1. With regard to the elements of the international application (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)):

**Description, Pages**

1, 3, 4                                  as originally filed  
2    received on 12.05.2004 with letter of 12.05.2004

**Claims, Numbers**

1-4                                      received on 12.05.2004 with letter of 12.05.2004

**Drawings, Sheets**

1/3-3/3                                received on 12.05.2004 with letter of 12.05.2004

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description,                pages:
- the claims,                       Nos.:
- the drawings,                    sheets:

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-5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).  
*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)

Yes: Claims 1-4  
No: Claims

Inventive step (IS)

Yes: Claims 1-4  
No: Claims

Industrial applicability (IA)

Yes: Claims 1-4  
No: Claims

2. Citations and explanations

**see separate sheet**

**Re Item V**

**Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1.1 Document NL-A-1006481, which represents the relevant prior art, discloses a barrier element having the features as recited in the preamble of claim 1, said barrier element being adapted for connection to a second barrier element as further recited in said preamble.

The subject-matter of claim 1 differs over the prior art in that on the first end the barrier element is provided with fixing means for accommodating a fixing element for fixing the barrier element relative to the carriageway (i) and wherein the fixing means comprise a fixing plate provided with feed-through holes (ii).

The subject-matter of claim 1 is therefore novel, Article 33(2) PCT.

1.2 The problem underlying the present invention is to provide a barrier element that can easily be fixed relative to a road surface.

Although fixing means for accommodating a fixing element for fixing the barrier element relative to the carriageway, said fixing means being located at a first end of the barrier element are known from US-A-4681302 (cf. col.5/l.38-43; fig.1), the combination of technical features (i and ii) has not been suggested by the prior art and therefore the solution as proposed to the barrier element problem in claims 1-4 is considered as involving an inventive step, Article 33(3) PCT.

One or more of these objects is achieved with a barrier element that according to the invention is characterized in that on the first end the barrier element is provided with fixing means for accommodating a fixing element for fixing the barrier element relative to the carriageway.

5 The first end of the guide element, which is provided with the parts for the tenon and mortise connecting system, after positioning of the barrier element is also easily and directly accessible for the fitting of fixing elements after the barrier element has been placed in position. That is also the case if several barrier elements have been combined to form an assembly, for example by using connecting plates and mounting bolts. In that case the first end will be easily and directly accessible even after placing 10 of the assembly. The fitting of the fixing means will consequently add little to the positioning time. Another advantage achieved is that no fitting hatches are necessary in order to reach the interior of the barrier element. A further advantage achieved is that, after the barrier elements have been positioned and connected, the fixing means are 15 shielded by the guide element and do not form any projecting parts that could cause injuries to persons or damage to road vehicles when accidents occur.

Rivets, clamps or screws, which are driven into the road surface, can be used as the fixing elements.

A preferred embodiment of the barrier element according to the invention is 20 characterized in that the fixing means are fitted in the interior of the barrier element. This has the advantage that there is great freedom in the type of fixing means and the way in which said fixing means are fixed on the barrier element, preferably with the guide element.

A preferred embodiment of a barrier element according to the invention is 25 characterized in that the fixing means comprise a base plate that is provided with feed-through holes. In this embodiment the base plate, which has already been fitted as part of the tenon and mortise connecting system, is also used as a fixing means. As a result, few or no additional parts need be placed in the barrier element. Apart from the abovementioned elements, hook-shaped or strip-shaped elements that interact with the 30 base plate can also be used as the fixing elements. Moreover, it is conceivable to fit an fixing plate as the fixing means if the base plate is not suitable for this purpose.

A further embodiment of the barrier element according to the invention is characterized in that the fixing means comprise a feed-through bush accommodated

## CLAIMS

1. Barrier element for bounding a carriageway, comprising a guide element extending along a longitudinal axis, which guide element transversely to the longitudinal axis has on the underside a foot part, which on the first end of the guide element is provided with a base plate, which base plate is provided with parts of a tenon and mortise connecting system as the first connecting means for connecting the barrier element to a second barrier element, which is provided with parts of a tenon and mortise system as the second connecting means, which interact with the first connecting means, characterized in that on the first end the barrier element is provided with fixing means for accommodating a fixing element for fixing the barrier element relative to the carriageway and wherein the fixing means comprise a fixing plate provided with feed-through holes.
2. Barrier element according to claim 1, characterized in that the fixing plate is the base plate.
3. Barrier element according to one of the preceding claims, characterized in that the fixing means comprise a feed-through bush between the fixing plate and the foot part.
4. Barrier element according to one of the preceding claims, characterized in that the fixing means are fitted near the guide element.